

Figure 8-17. Average sediment PCDD/PCDF homolog weight percents by reach.

Notes: Non-detect samples included at 1/2 MDL. Plot shows EPA data from all depths. Number of samples in each reach included on plots.

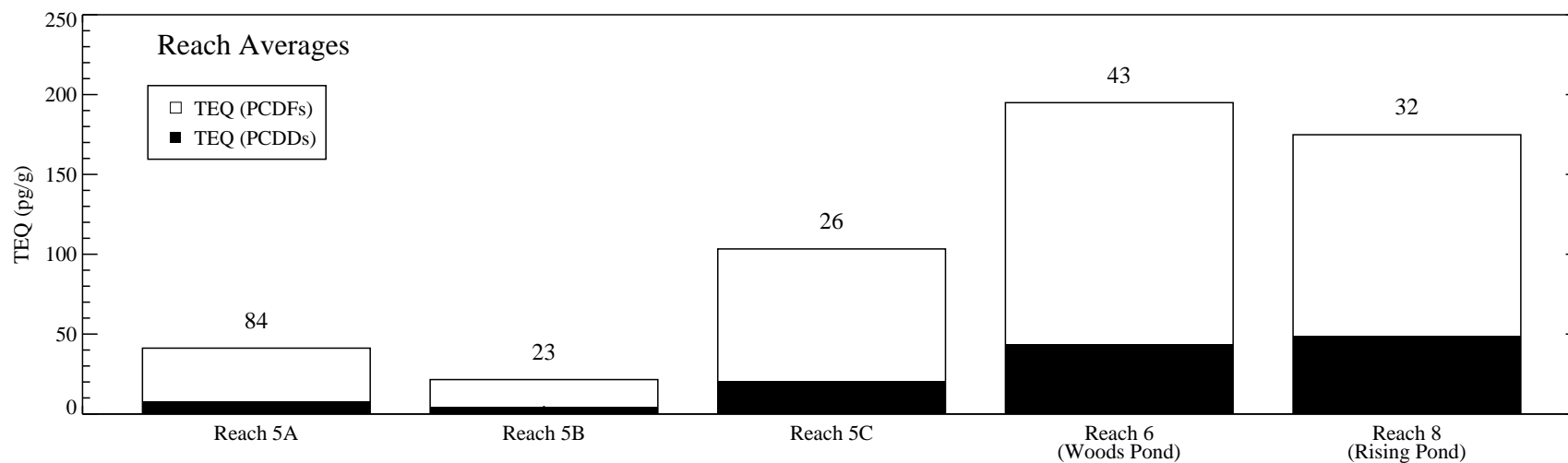
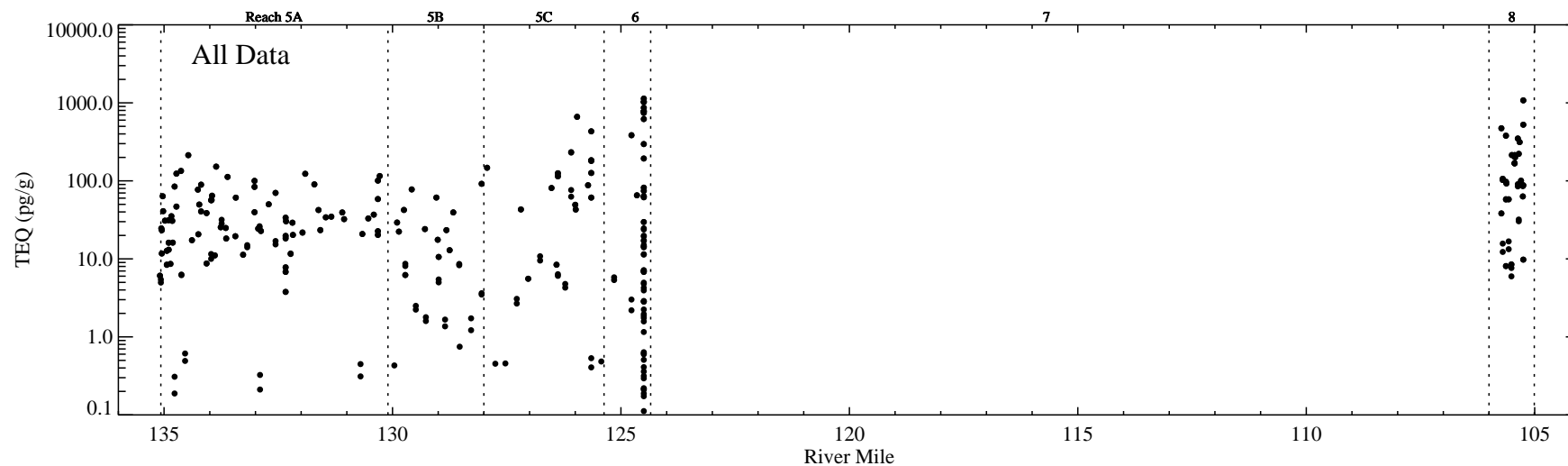


Figure 8-18. Spatial profiles of TEQ calculated from Housatonic River sediment PCDD/PCDF data.

Notes: Includes data from all depth intervals. Number of observations in each reach is posted above the bars. Non-detects plotted at 1/2 MDL.

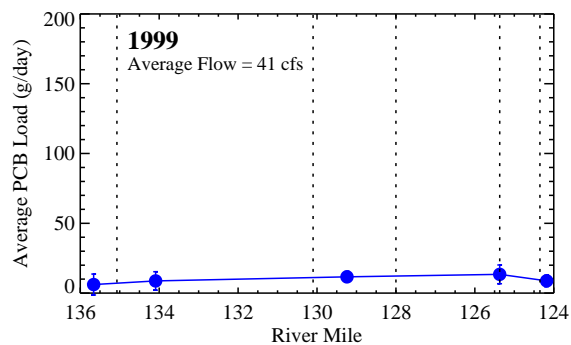
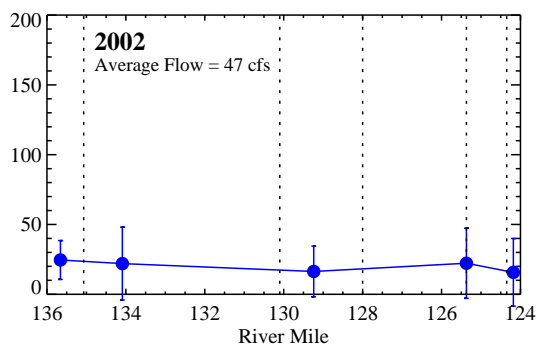
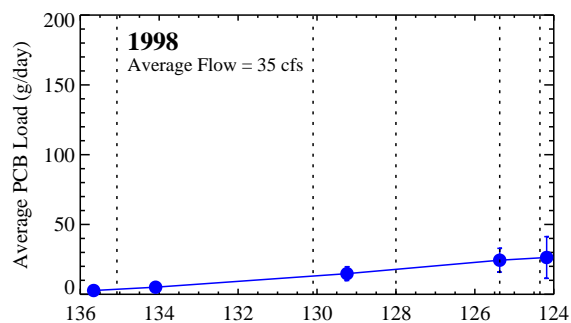
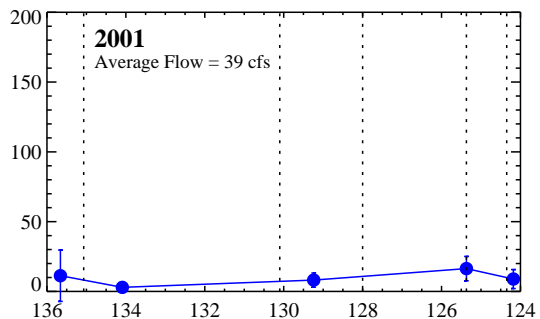
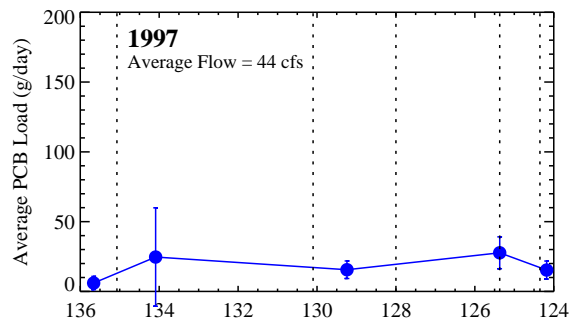
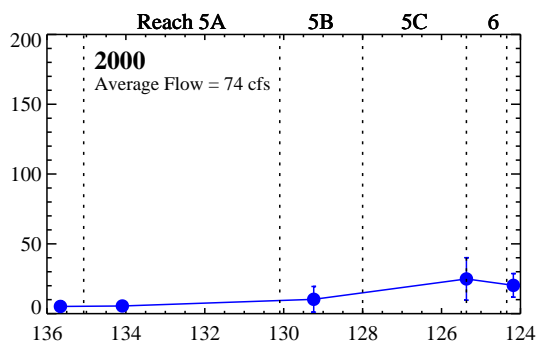
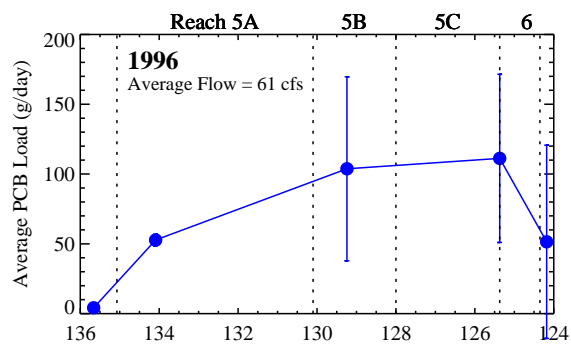


Figure 8-19a. Annual average spatial profiles of PCB loading for low flow (< 100 cfs at Coltsville) GE/EPA monthly water column monitoring data.

Notes: Error bars represent 2 standard errors of the mean. Flows for loading calculations prorated based on drainage basin proration values computed for each sampling station. Outlier collected on 3/26/98 at Holmes Road removed.

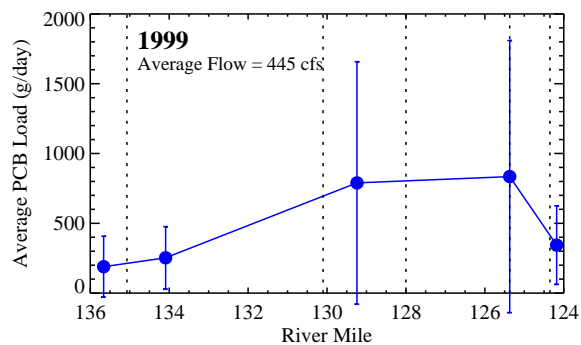
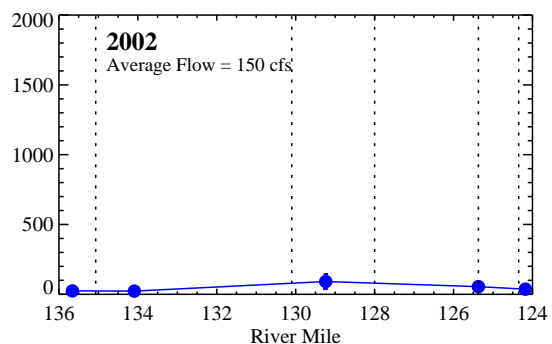
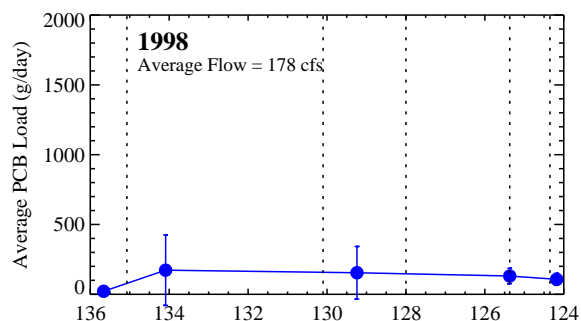
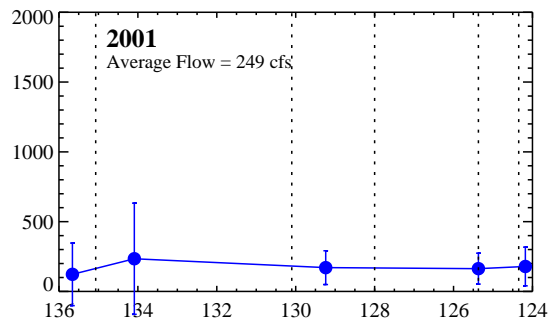
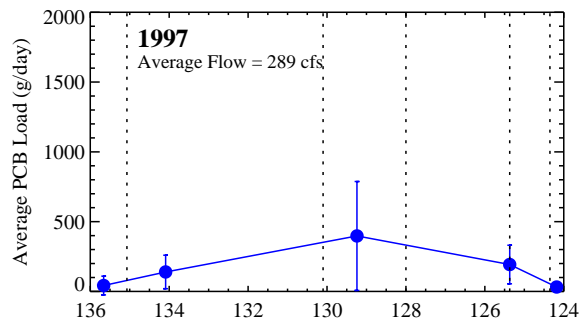
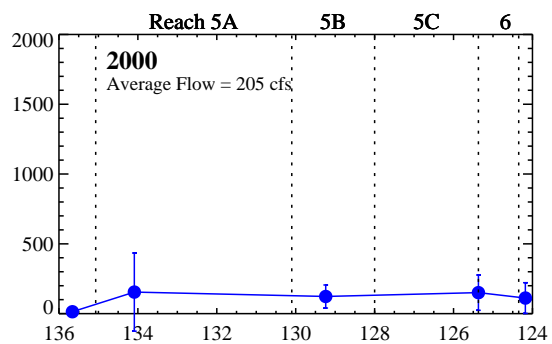
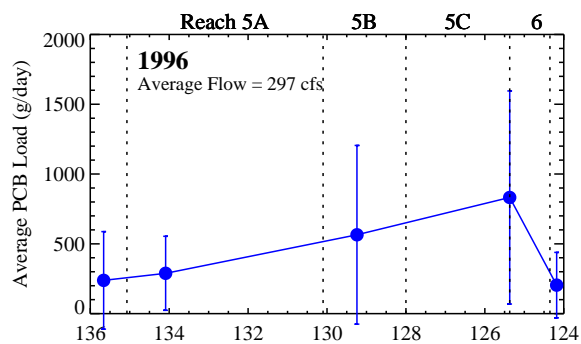


Figure 8-19b. Annual average spatial profiles of PCB loading for higher flow (> 100 cfs at Coltsville) GE/EPA monthly water column monitoring data.

Notes: Error bars represent 2 standard errors of the mean. Flows for loading calculations prorated based on drainage basin proration values computed for each sampling station. Outlier collected on 3/26/98 at Holmes Road removed.

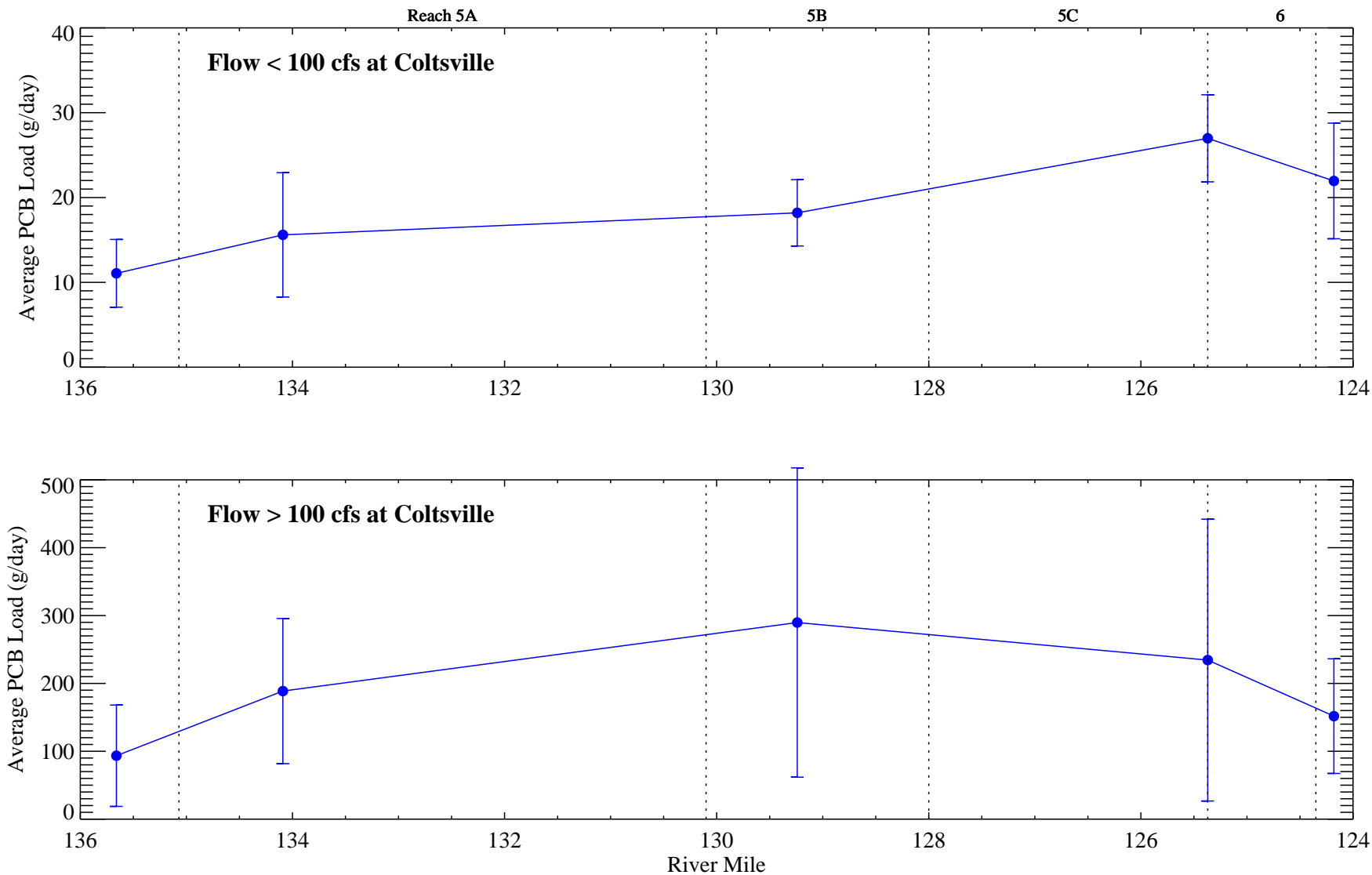


Figure 8-20. Spatial profiles of PCB loadings for 1997-2002 GE/EPA monthly water column monitoring data.

Notes: Flows for loading calculations prorated based on drainage basin proration values computed for each sampling station. Error bars represent 2 standard errors of the mean. Outlier collected on 3/26/98 at Holmes Road removed.

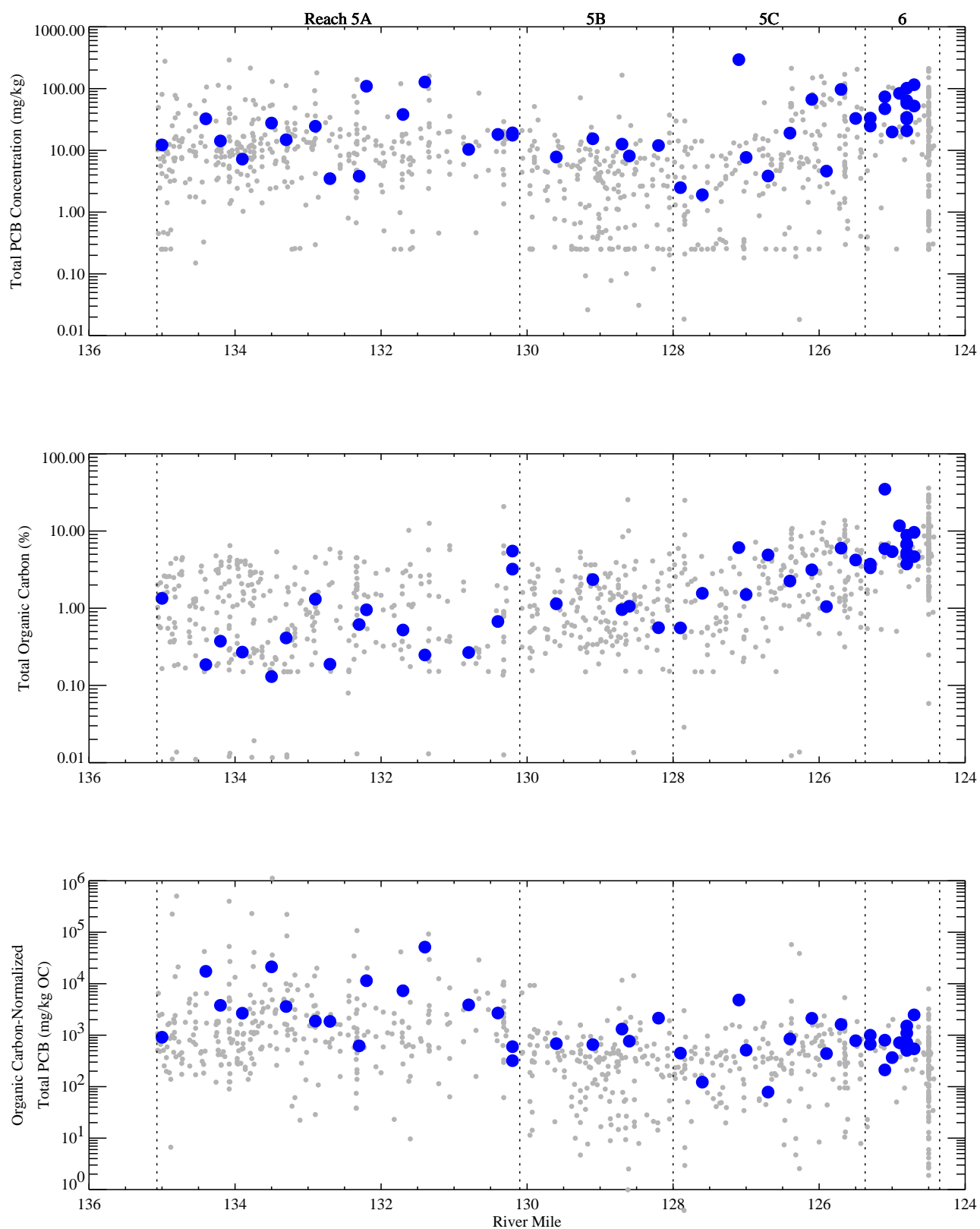


Figure 8-21. Spatial profiles of surface sediment (0-6") data collected as part of the 1998-2002 EPA and 2001 EPA/GE partitioning studies.

- 1998-2002 EPA Data
- 2001 Partitioning Data

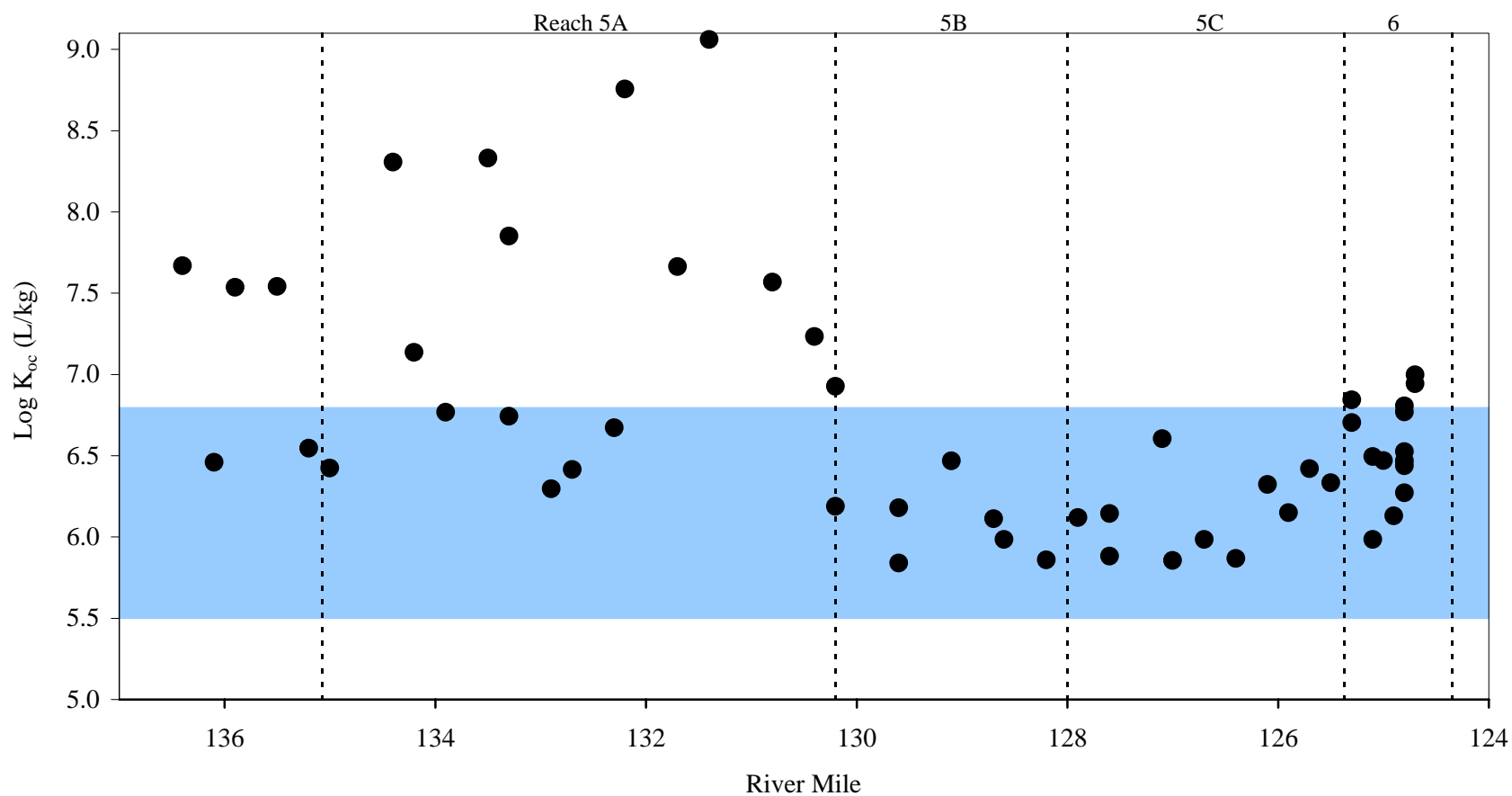


Figure 8-22. Spatial profile of sediment 3-phase partition coefficients calculated from 2001-2002 EPA/GE partitioning study data.

Note: Shaded area represents the range (5.5-6.8) of published Aroclor 1260 K_{oc} values (Mackay, 1992).

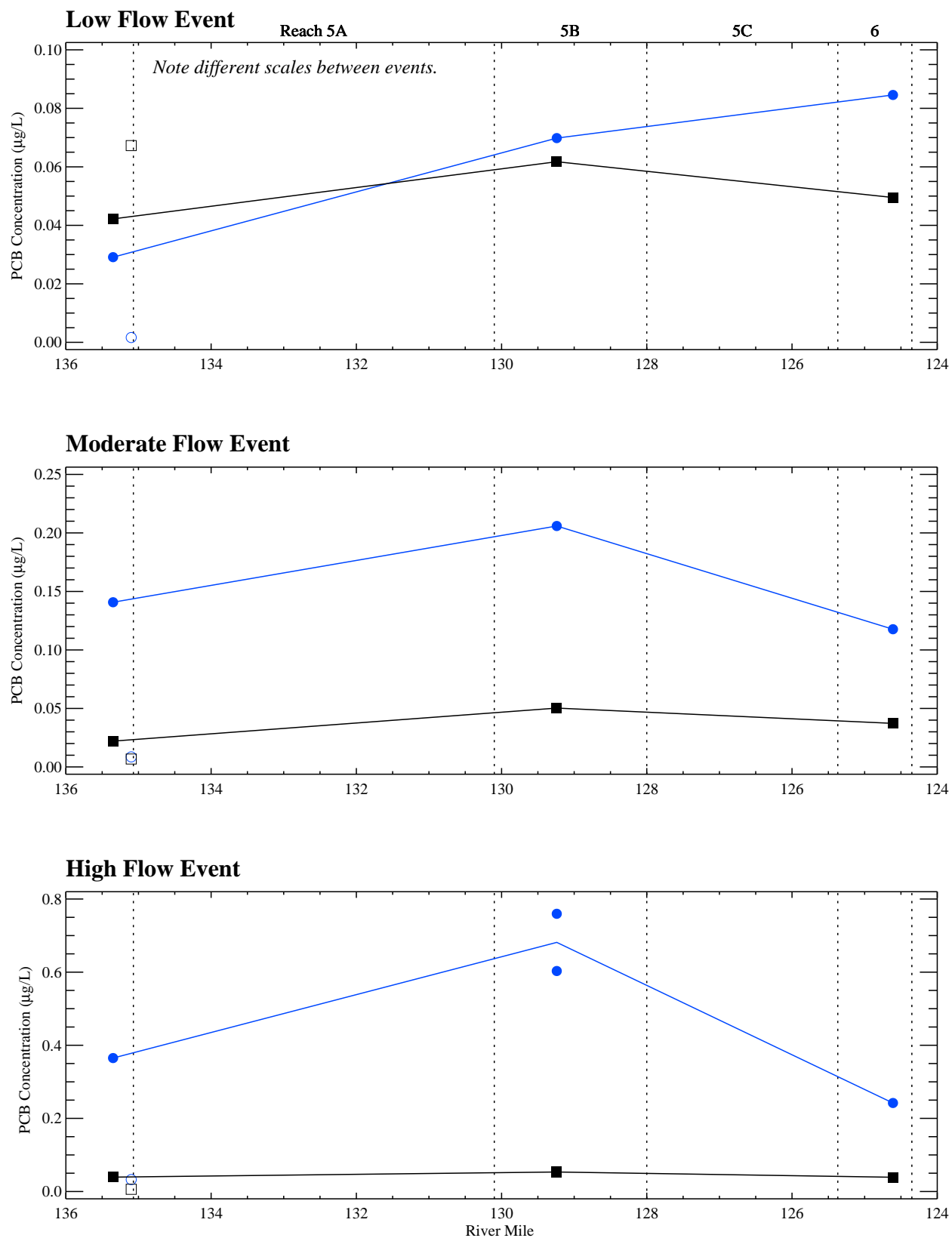


Figure 8-23. Spatial profiles of water column particulate- and dissolved-phase PCBs during low, moderate, and high flow events.

Data set shown: 2001-2002 EPA/GE partitioning data.

Note: Open symbols denote samples collected in the West Branch.

● Particulate
■ Dissolved

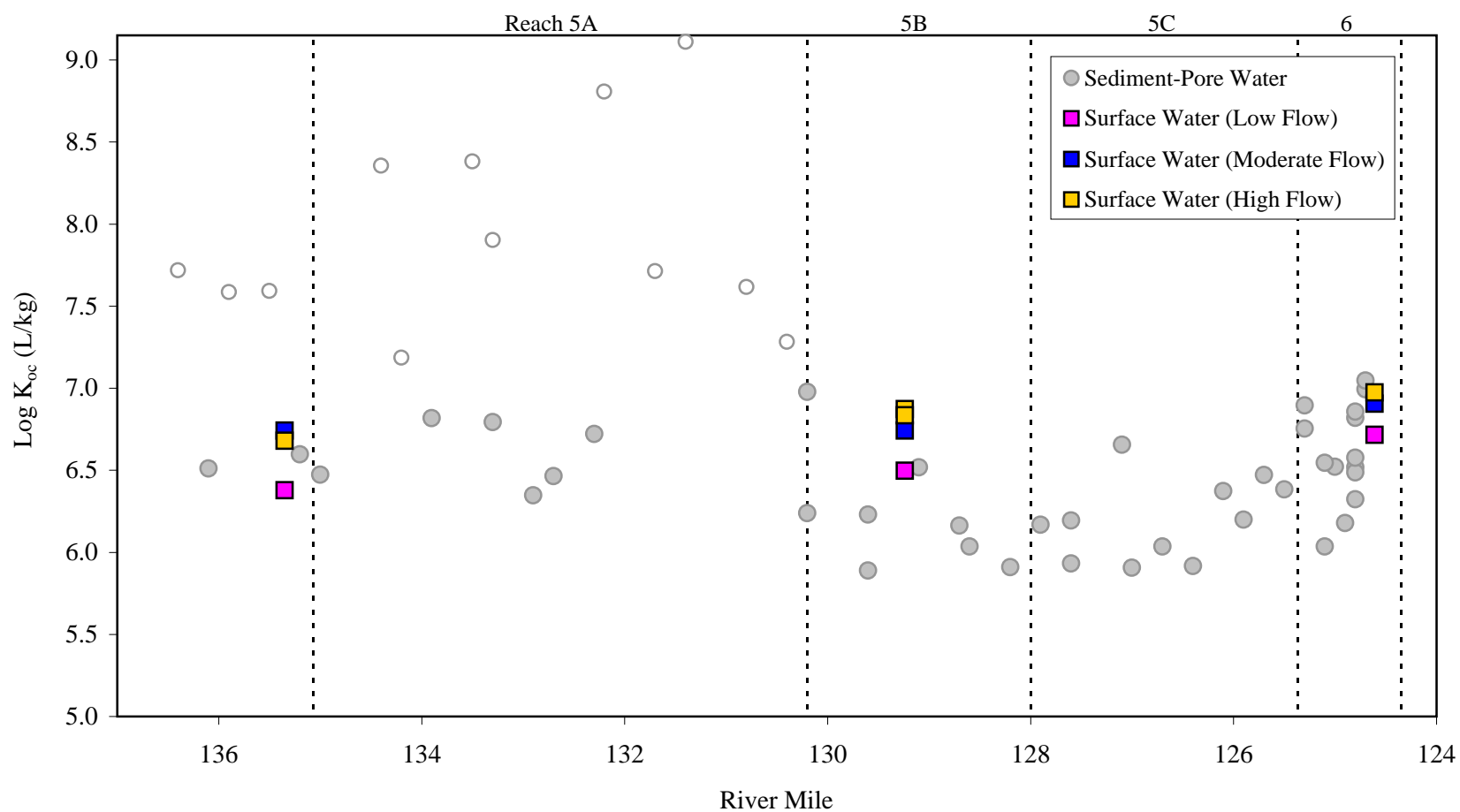


Figure 8-24. Spatial profile of sediment and surface water 3-phase partition coefficients calculated from 2001-2002 EPA/GE partitioning study data.

Note: Empty symbols represent samples having calculated log K_{oc} values greater than 7.0 and are considered generally unrepresentative of the system.

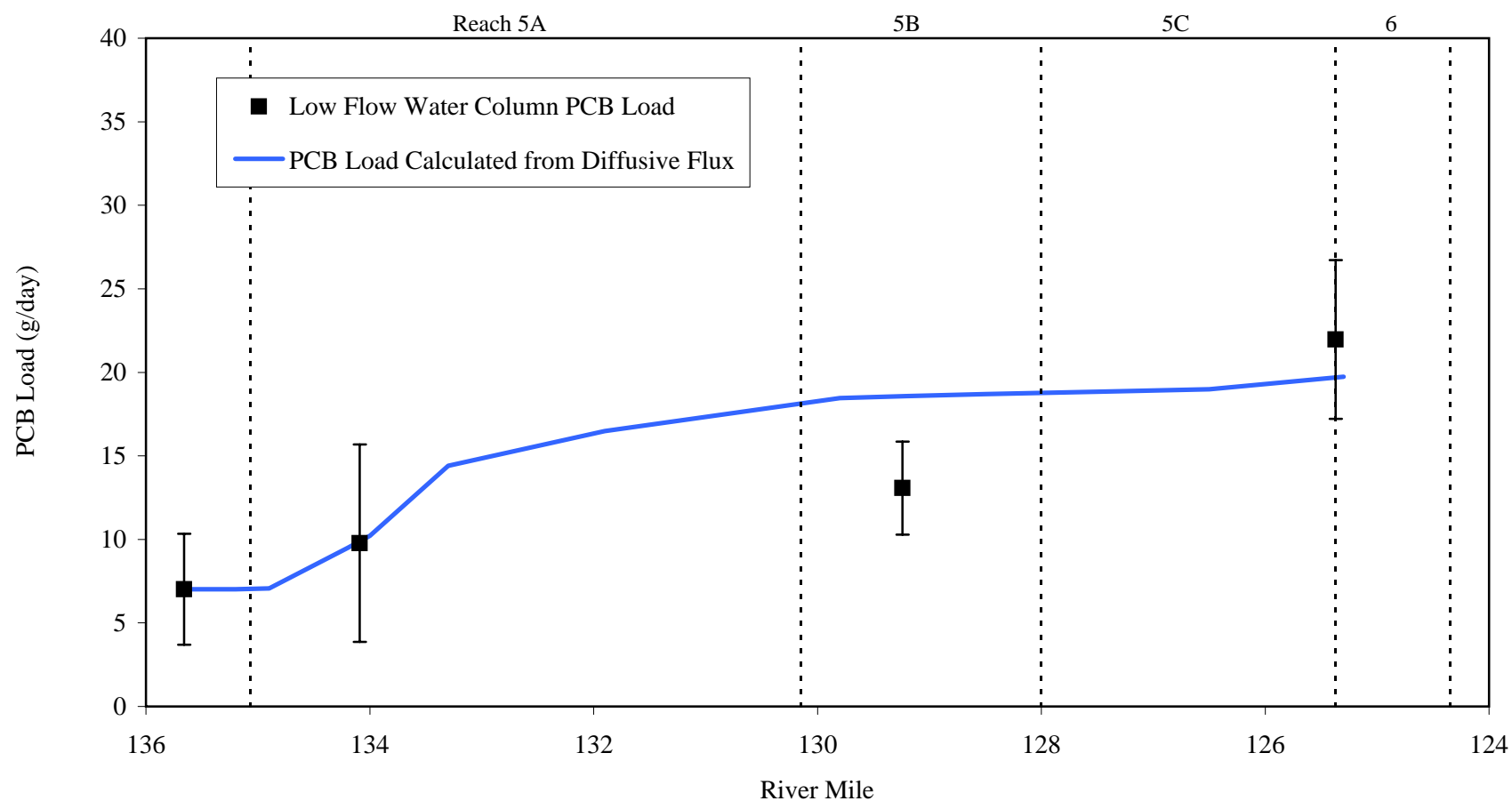


Figure 8-25. Comparison between low flow (< 100 cfs at Coltsville) water column PCB loadings calculated based on a diffusional sediment source and observed 1997-2002 GE/EPA water column loadings.

Notes: Non-detect samples set to 1/2 MDL. Error bars represent 2 standard errors of the mean.

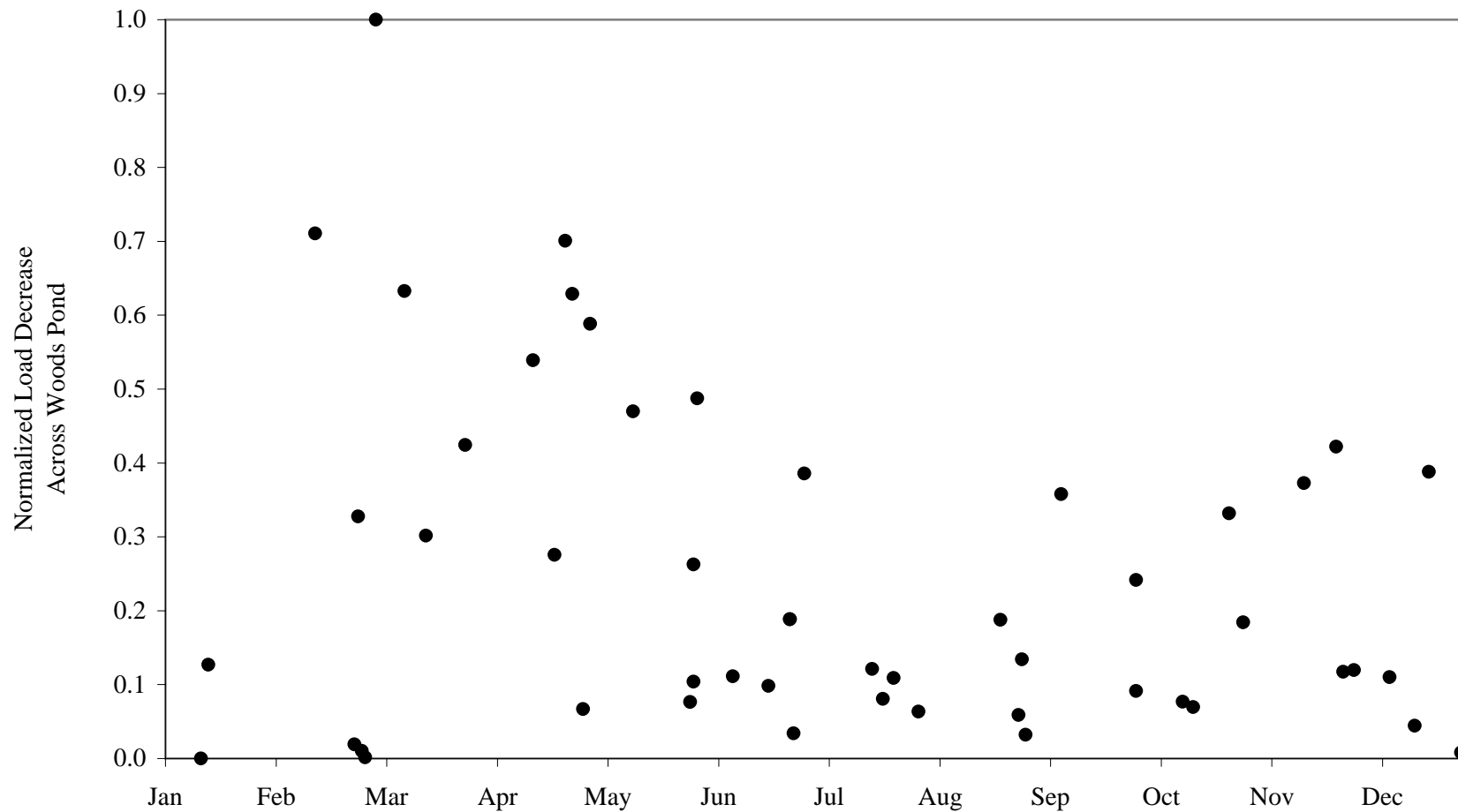


Figure 8-26. Temporal profile of the observed PCB load decrease across Woods Pond attributed to biotic solids.

Notes: Chart only includes sampling events in which a decrease in PCB loading was observed across Woods Pond. Load decrease normalized to largest observed decrease between 1997 and 2002. 3 outliers were removed.

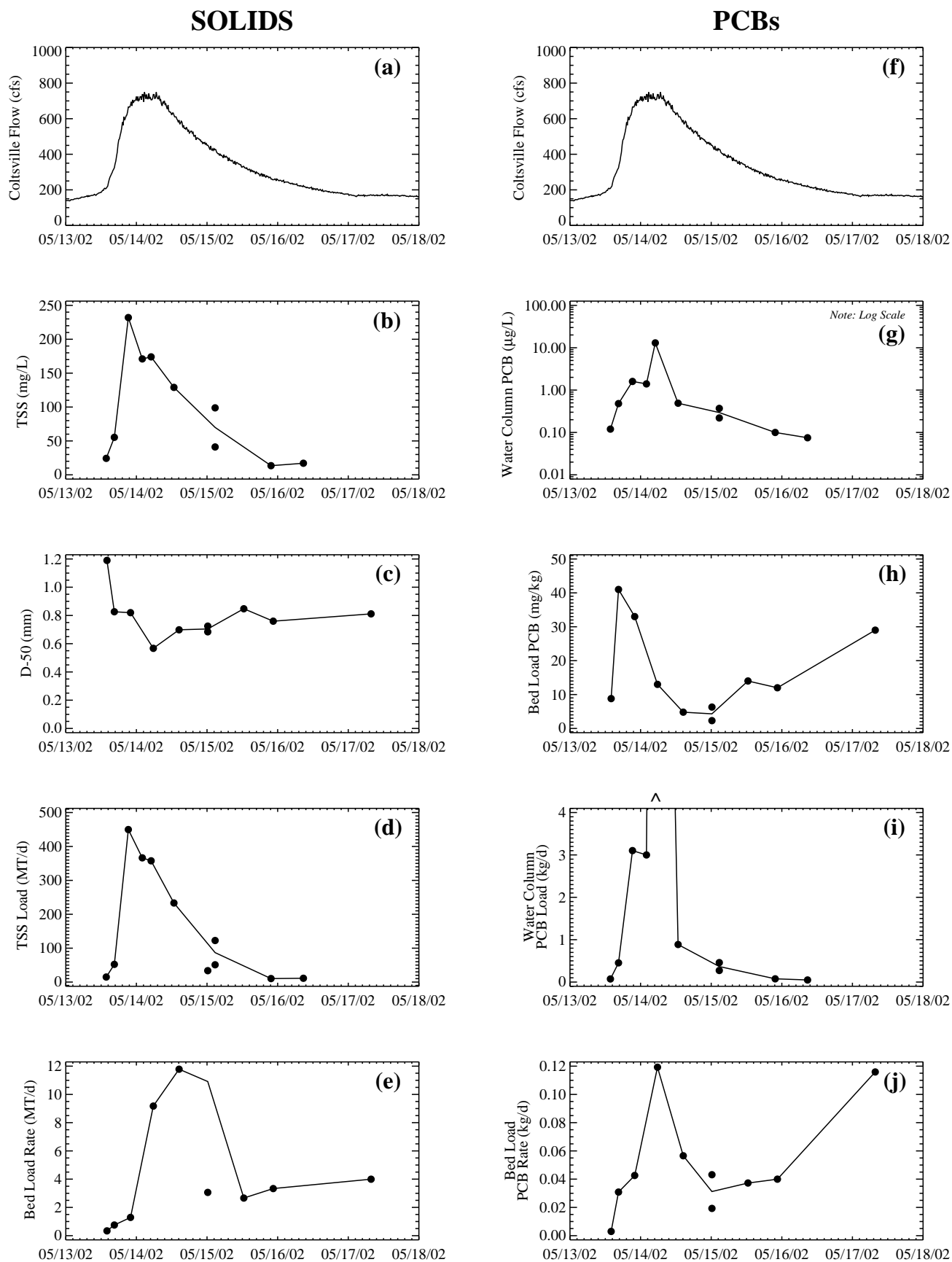
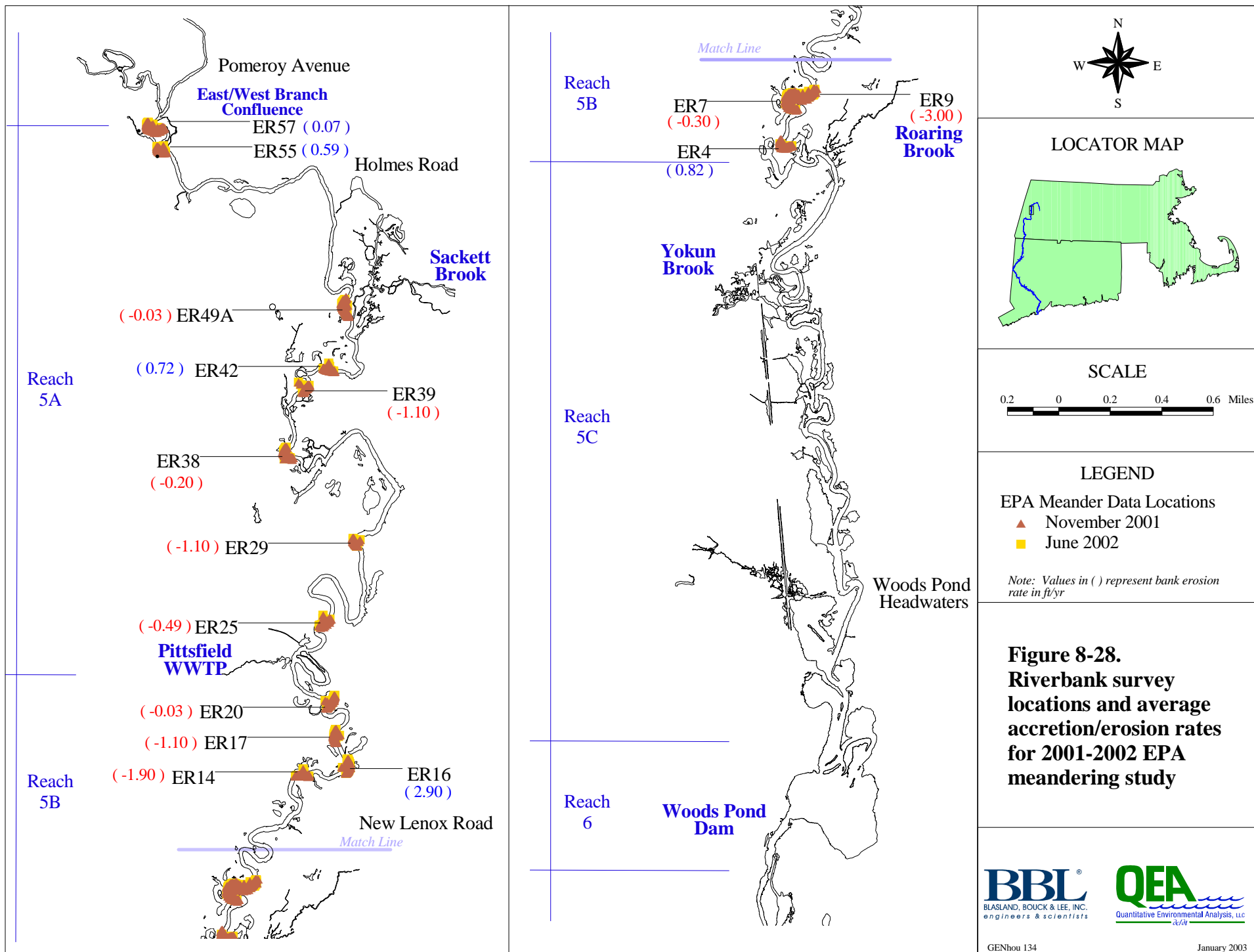
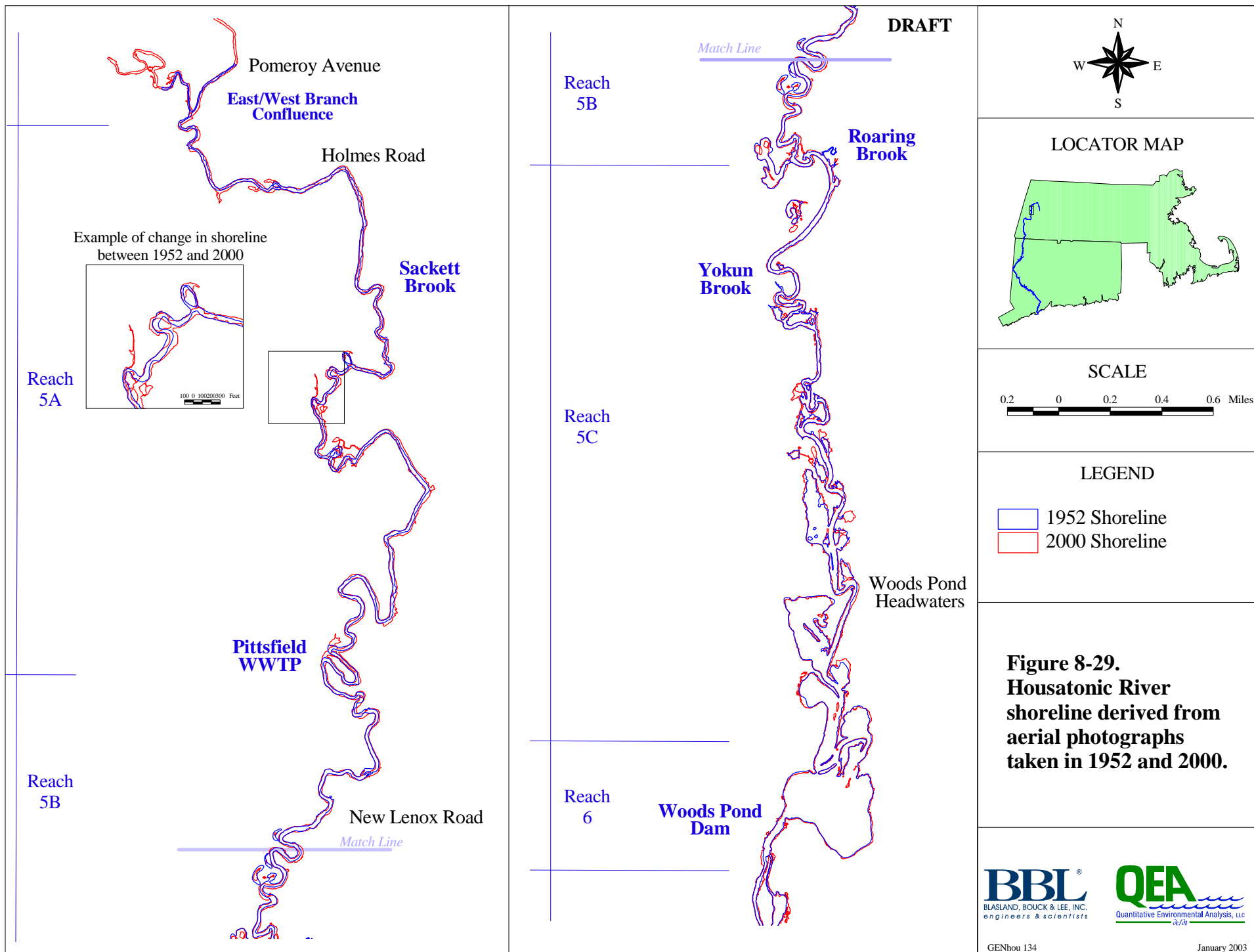


Figure 8-27. Bed load data collected at Pomeroy Avenue during May 2002.

Notes: Solid line represents the average for duplicate samples. Flows for loading calculations prorated based on drainage basin proration.





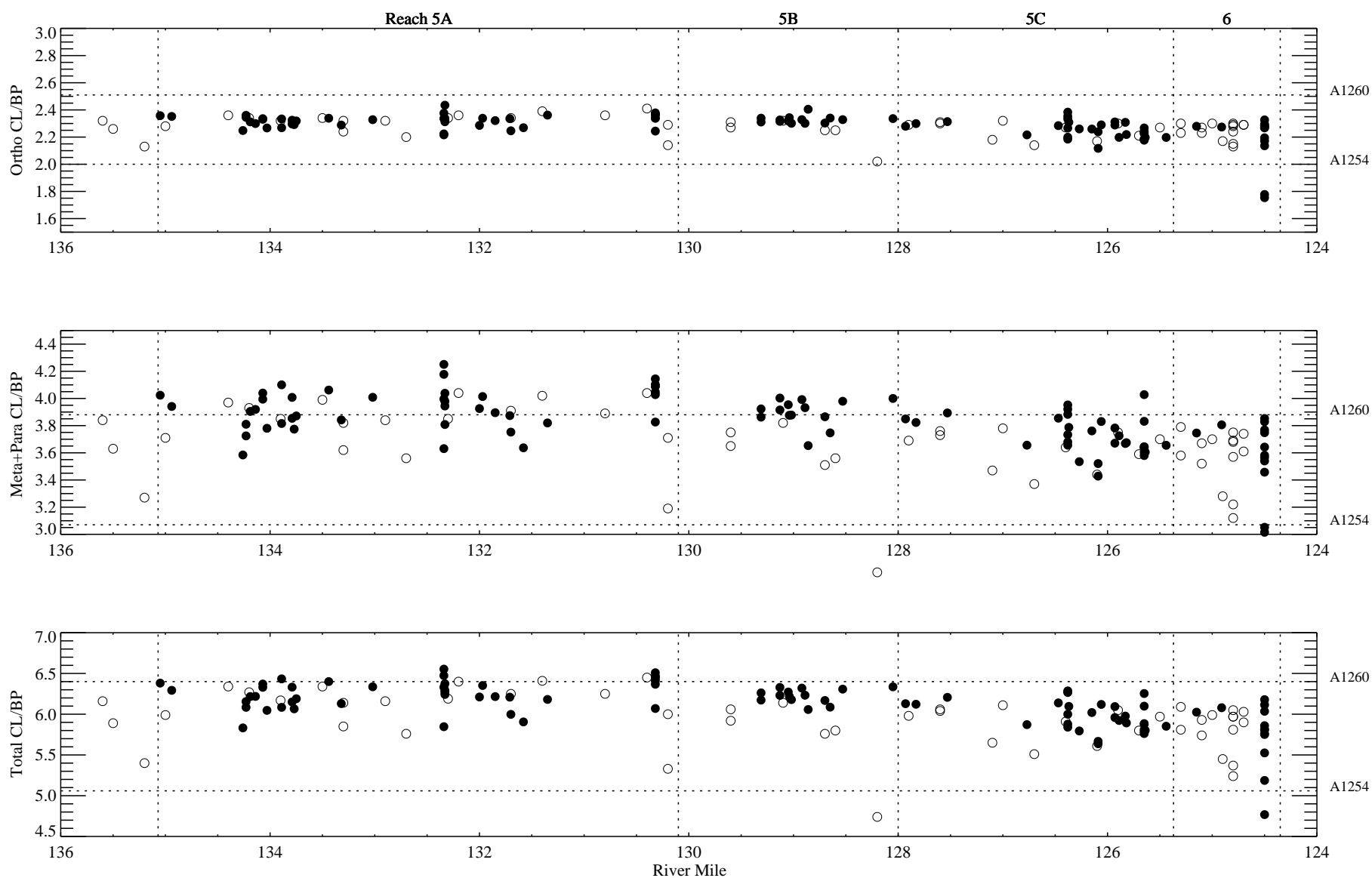


Figure 8-30. Spatial profiles of surface sediment PCB CL/BP.

Data sets included in average: 1998-2002 EPA and 2001 EPA/GE partitioning data.

Notes: Non-detect PCB congeners were set to 0. Horizontal dotted lines represent CL/BP in Aroclor 1254 and 1260 standards.

- 1998-2002 EPA
- 2001 EPA/GE Partitioning

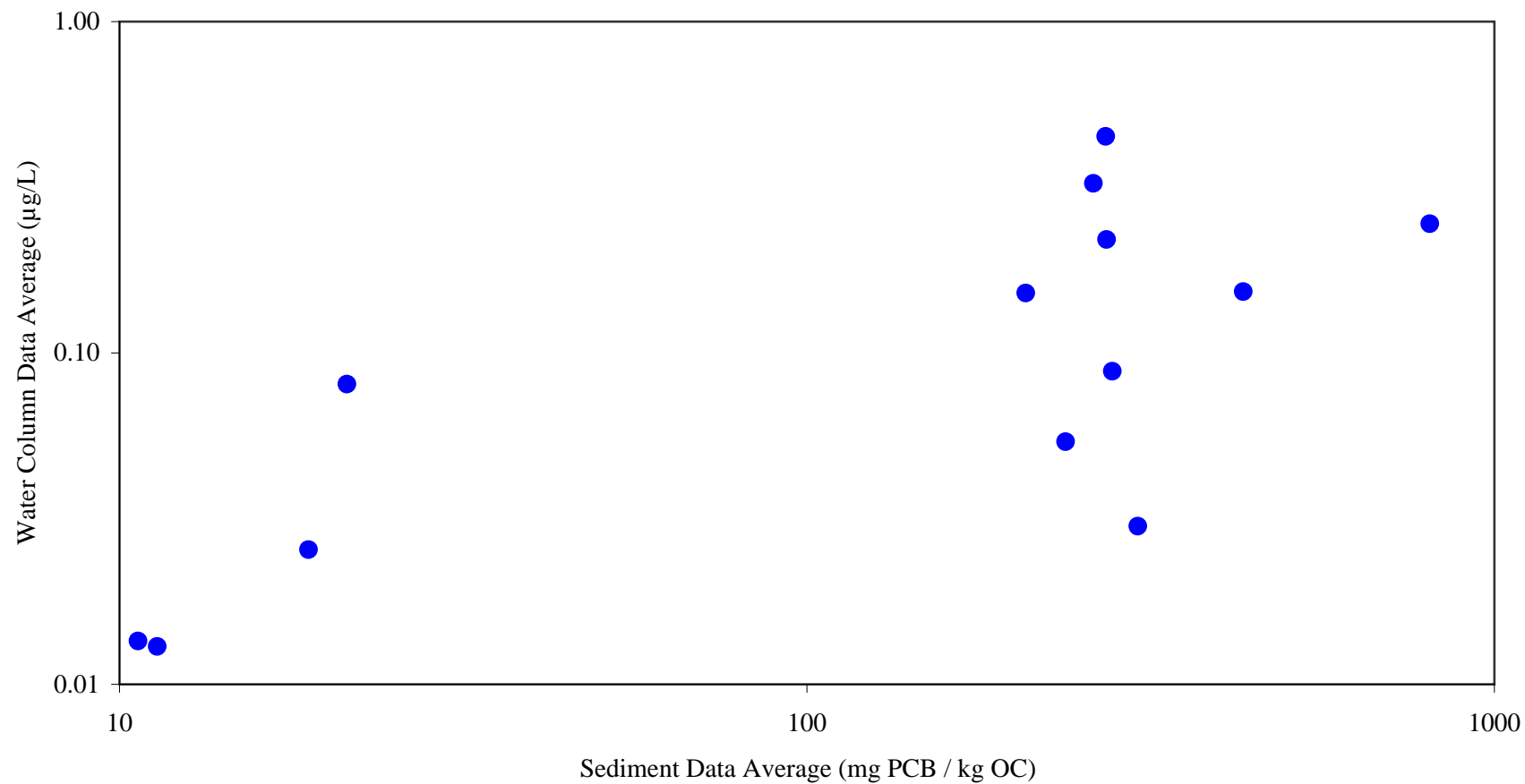


Figure 8-31. Comparison between average 1998-2002 EPA water column and sediment PCB concentrations measured in vernal pool areas.

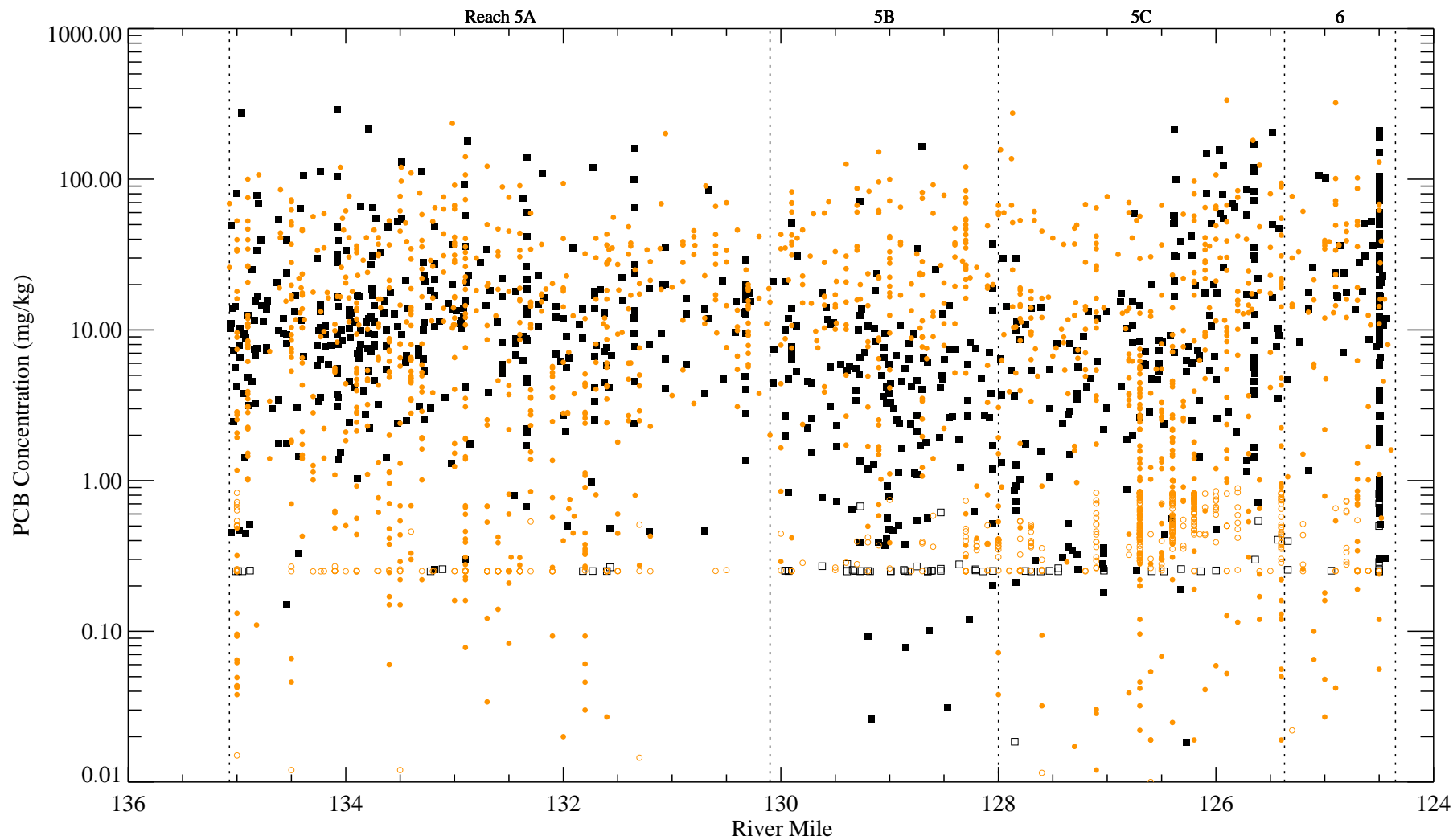
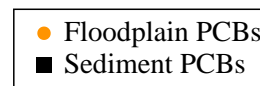


Figure 8-32. Spatial profile of PCBs in surface (0-6") floodplain soil and sediment.

Notes: Data shown are 1998-2002 EPA and 2001 EPA/GE partitioning data. Non-detects plotted as open symbols at 1/2 MDL.



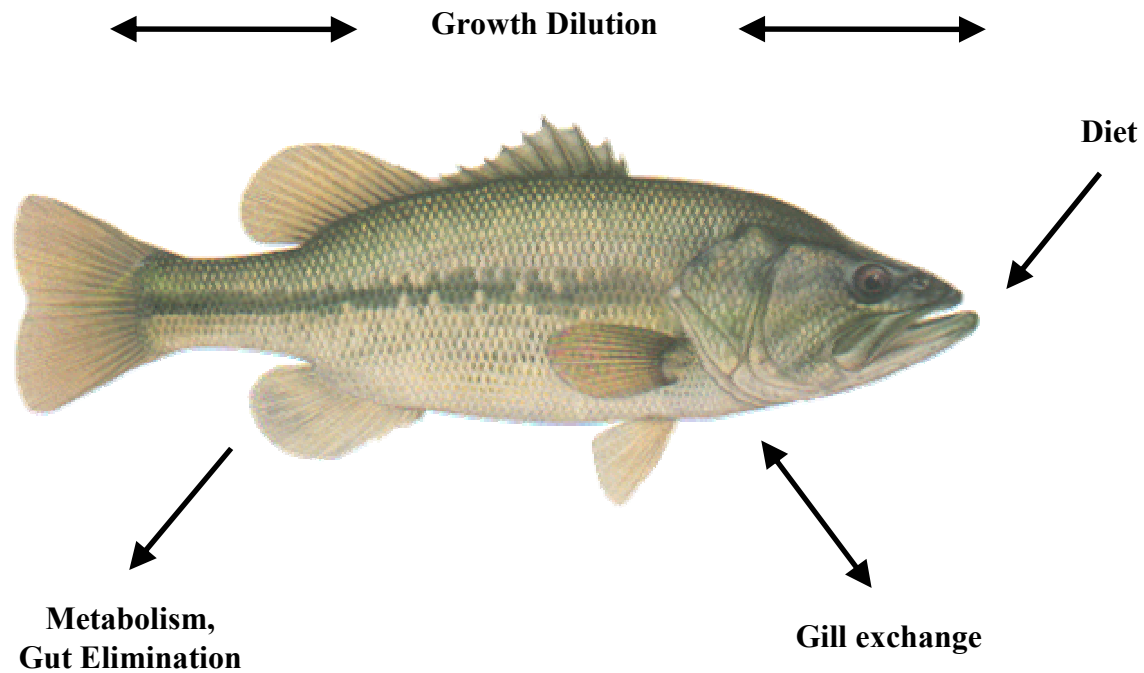


Figure 8-33. The mechanisms of bioaccumulation in an aquatic organism.

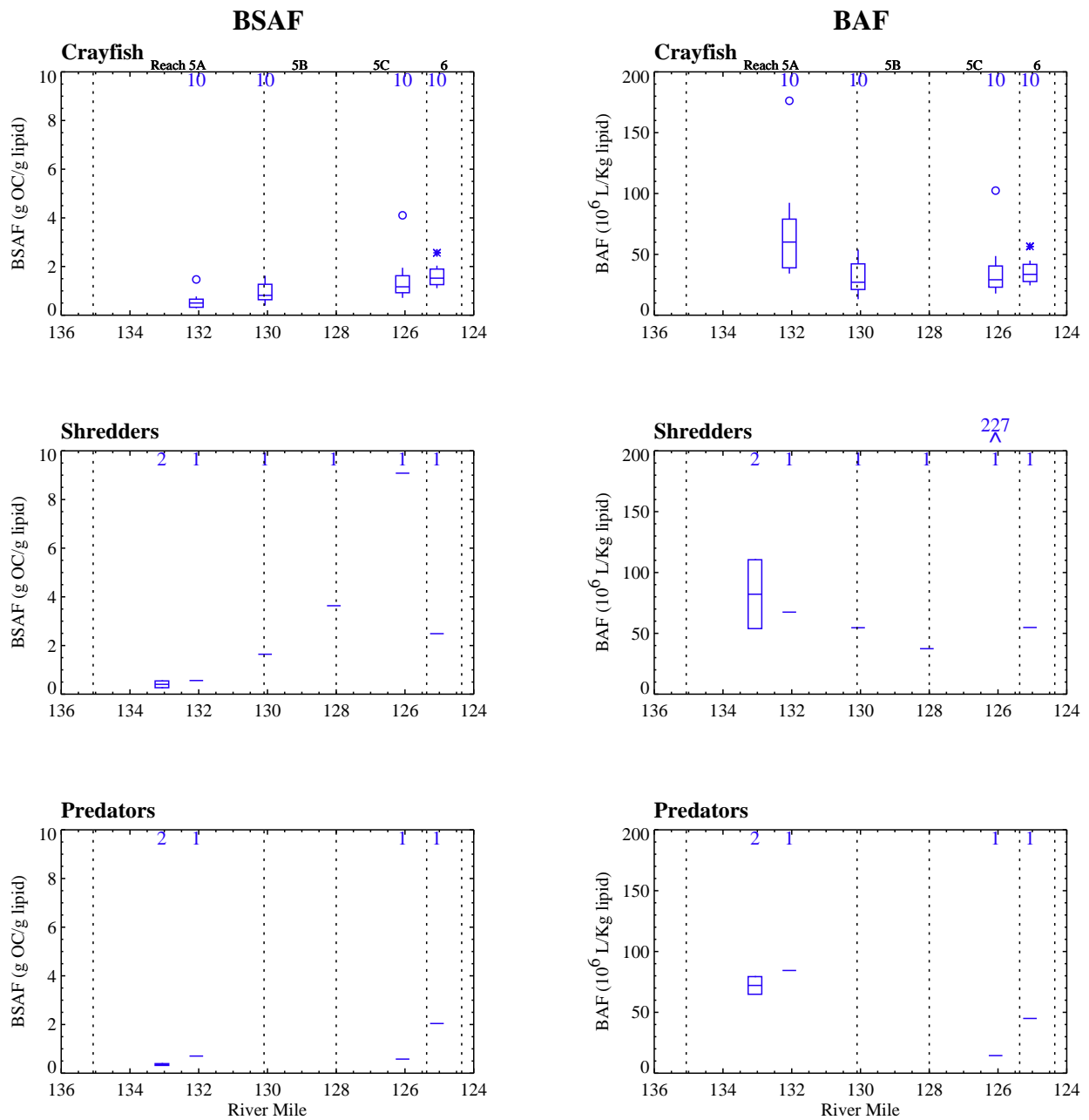


Figure 8-34. PCB BSAFs and BAFs for benthic invertebrates.

Data set shown: 1999 EPA data.

*Note: BSAFs calculated using main channel sediment concentrations.
Data are presented as standard Tukey box plots by location.*

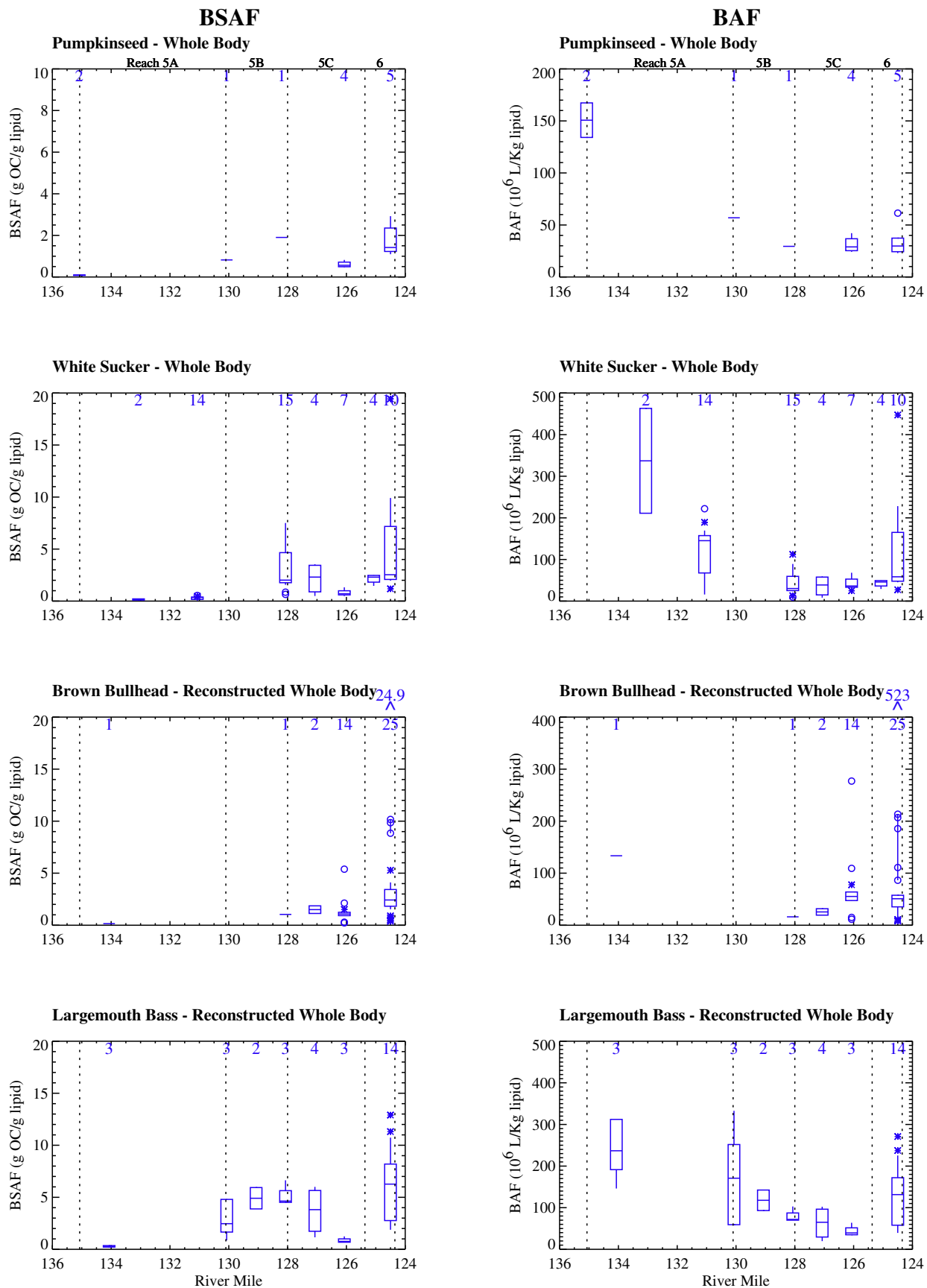


Figure 8-35. PCB BSAFs and BAFs for representative fish species.

Data set shown: EPA and GE data.

Note: BSAFs calculated using main channel sediment concentrations.

Data are presented as standard Tukey box plots by location.

All fish data were collected in 1998 except White Sucker collected in 2000.

One outlier (low lipid value) for White Sucker in Woods Pond was removed; total PCB = 44.7 mg/kg wet weight, lipid = 0.1%.